

# Solid Bevel Cutter resharpening

## A12-510

Solid bevel cutters are used for mass bevel gear production in milling process.

The cutter could be made out of solid blank or it could be composite tool, made out of carrier plate and stucked blades. Due to their form, reminding a crown, these tools are also known as crown cutters.

Solid bevel cutters are sharpened using a corresponding cup wheel.

The given example is a solid bevel cutter with Ø115mm, 24 alternate teeth and 12mm cutting depth.



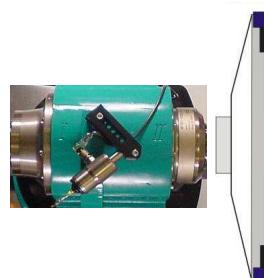
## 1. Cycletime for Production

Tool specifications					
Diameter 115 mm, Z 24, Length of cutting edge 12 mm					
Material HSS					
Operations					
Feed [mm/Min]	2000	400	125	250	250
Infeed / pass [mm]		0.005		0.050	0.050
Wheel speed [m/s]		33	33	33	33
Used wheels					
Grinding time [s]	60	60	35	600	600
Total cycle time	~ 22 min				

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.

## 2. Used Grinding Wheels

6A2 / 12C9 90°CBN Ø100 B91



## 3. Machine and Software Requirements

Machines: 5 axes CNC grinder: Corvus GDS / Gemini DMR / Norma CFG  
Control: Fanuc 160i / 310i  
Coolant: Synthetic Oil, pressure 6 bar  
Software: Quinto 5.4.2 or higher

responsible engineer: SIW, 08.2010

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